

# FUEL BURNING EQUIPMENT REGISTRATION

Form  
ARD-2

State of New Hampshire  
Department of Environmental Services  
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## I. EQUIPMENT INFORMATION

### A. Boilers

Installation Description: \_\_\_\_\_

Date Designed: \_\_\_\_\_ Date Installed: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Model No: \_\_\_\_\_

Serial No: \_\_\_\_\_ Nameplate Rating: \_\_\_\_\_ mmBtu/hr (input)  
\_\_\_\_\_ mmBtu/hr (output)

Burner Manufacturer: \_\_\_\_\_ Model No: \_\_\_\_\_

Serial No: \_\_\_\_\_ Fuel Flow Rate: \_\_\_\_\_ (gallons)(mcf) (tons)/hr

Type of Burner: \_\_\_\_\_

Gaseous Fuel: ☐ Natural Gas ☐ Propane ☐ Other (specify): \_\_\_\_\_

Solid Fuel: ☐ Cyclone ☐ Pulverized (☐ wet ☐ dry) ☐ Spreader Stoker  
☐ Underfeed Stoker ☐ Overfeed Stoker ☐ Hand-Fired  
☐ Fly Ash Re-injection ☐ Other (specify): \_\_\_\_\_

Liquid Fuel: ☐ Pressure Gun ☐ Rotary Cup ☐ Steam Atomization  
☐ Air Atomization ☐ Other (specify): \_\_\_\_\_

Fuel Temperature prior to injection \_\_\_\_\_ ° F

Combustion Type: \_\_\_\_\_

☐ Tangential Firing ☐ Opposite end firing ☐ Limited Excess Air Firing  
☐ Flue Gas Recirculation ☐ Staged Combustion ☐ Biased Firing  
☐ One End Only Firing ☐ Other: \_\_\_\_\_

**B. Internal Combustion Engine/Combustion Turbine**

Installation Description: \_\_\_\_\_

Date Designed: \_\_\_\_\_ Date Installed: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Model No: \_\_\_\_\_

Serial No: \_\_\_\_\_ Fuel Flow Rate: \_\_\_\_\_ (gallons)(mcf)/hr

Engine HP Output Rating: \_\_\_\_\_ HP. Engine used for: \_\_\_\_\_

**C. Fuel Supplier**

Name and address: \_\_\_\_\_

**D. Fuel Additives**

Manufacturers name and address: \_\_\_\_\_

Specific Identification of Additive: \_\_\_\_\_

Consumption Rate: \_\_\_\_\_ gallons per 1000 gallons of fuel

**II. OPERATIONAL INFORMATION****A. Fuel Usage (List each fuel utilized by each component for this device):****Liquid/Gaseous Fuels:**

Comp.	Type	Sulfur %	Ash %	Max. Firing Rate (mmBtu/hr)	Annual Usage (gals, ft <sup>3</sup> , tons)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**Solid Fuels:**

Comp.	Type	Btu/ Ton	% Mst.*	Max. Firing Rate (mmBtu/hr)	Annual Usage (tons)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

\* moisture percentage

**B. Stack Information: (Provide information requested for each stack)**

Inside Diameter: \_\_\_\_\_ ft. Discharge height above ground level: \_\_\_\_\_ ft

Exhaust Temp: \_\_\_\_\_ °F. Exhaust Flow: \_\_\_\_\_ ACFM

Exhaust Velocity: \_\_\_\_\_ feet per second. Stack Material \_\_\_\_\_

Identify other units on this stack: \_\_\_\_\_

Is unit equipped with multiple stacks? \_\_\_\_\_ (if "yes" provide above data for each)

Is stack monitoring used? \_\_\_\_\_ Describe: \_\_\_\_\_

Is Section 123 of CAA applicable? \_\_\_\_\_ yes \_\_\_\_\_ no

Stack Base Elevation: (feet above mean sea level): \_\_\_\_\_

C. Hours of Operation:

Hours/day: \_\_\_\_ Days/week: \_\_\_\_ Weeks/year: \_\_\_\_ Hours/year: \_\_\_\_  
 Seasonal Usage: Winter: \_\_\_\_% Summer: \_\_\_\_% Fall: \_\_\_\_% Spring: \_\_\_\_%  
 (Seasonal usage must add up to 100%)

**III. DEVICE EMISSION DATA:**

<b>POLLUTANT</b>	<b>Actual (lbs/hr)</b>	<b>Potential (lbs/hr)</b>	<b>Actual (tons/yr)</b>	<b>Potential(tons/yr)</b>

**IV. POLLUTION CONTROL EQUIPMENT**

A. Type of equipment: (Note: If process utilizes more than one control device, provide data for each device (use separate sheet if necessary)).

<input type="checkbox"/> baffled settling chamber	<input type="checkbox"/> wide bodied cyclone
<input type="checkbox"/> long cone cyclone	<input type="checkbox"/> irrigated long cone cyclone
<input type="checkbox"/> multiple cyclone (____" dia.)	<input type="checkbox"/> carbon absorption
<input type="checkbox"/> electrostatic precipitator	<input type="checkbox"/> irrigated electrostatic precipitator
<input type="checkbox"/> spray tower	<input type="checkbox"/> absorption tower
<input type="checkbox"/> venturi scrubber	<input type="checkbox"/> baghouse
<input type="checkbox"/> afterburners(incineration)	<input type="checkbox"/> packed tower/column
<input type="checkbox"/> selective catalytic reduction	<input type="checkbox"/> selective non-catalytic reduction
<input type="checkbox"/> reburn	<input type="checkbox"/> other (specify): _____

- B. Operation: (Note: If process emits more than one pollutant, provide data for each pollutant (use separate sheet if necessary)).

Pollutant Input Information

Pollutant	CAS #	Inlet Temp.	Norm. Rate (lbs/hr)	Max. Rate (lbs/hr)	Actual (tons/yr)	Potential (tons/yr)

Method used to determine entering emissions:

☐ stack test    ☐ vendor data    ☐ material balance  
☐ emission factor    ☐ other (specify): \_\_\_\_\_

Pollutant Output Information

Pollutant	CAS #	Outlet Temp.	Norm. Rate (lbs/hr)	Max. Rate (lbs/hr)	Actual (tons/yr)	Potential (tons/yr)

Method used to determine exiting emissions:

☐ stack test   ☐ vendor data   ☐ material balance  
☐ emission factors   ☐ other (specify): \_\_\_\_\_

Control Efficiency: \_\_\_\_\_ %   Verified by: ☐ test   ☐ calculations

Capture Efficiency: \_\_\_\_\_ %   Verified by: ☐ test   ☐ calculations

Final disposal of collected pollutants: \_\_\_\_\_

Conditions:

Total gas volume thru unit: \_\_\_\_\_ acfm @ \_\_\_\_\_ °F and \_\_\_\_\_ %CO<sub>2</sub>

Pressure Drop: \_\_\_\_\_ inches of water.   Liquid recycle rate: \_\_\_\_\_ gpm

Voltage: \_\_\_\_\_   Spark rate: \_\_\_\_\_   Milliamps: \_\_\_\_\_

Note: For particulate emissions, provide a particle size analysis (if available).

Cost Data:

Capital cost: \_\_\_\_\_ Installation cost: \_\_\_\_\_

Operating cost: \_\_\_\_\_ (per year)